

## CLAIMS

What is claimed is:

1. In combination with an electronic component, a contact structure, comprising:

- 3       a post component;  
          a beam component joined to the post component; and  
          a tip component joined to the beam component.

2. A contact structure, according to claim 1, wherein:  
          the beam component is elongate, has a one end and an  
3   opposite end;  
          the post component is joined to the one end of the beam  
          component; and  
6       the tip component is joined to the opposite end of the  
      beam component.

3. A contact structure, according to claim 1, wherein:  
          the beam component has a one surface and an opposite  
3   surface;  
          the post component is joined to the one surface of the  
          beam component; and  
6       the tip component is joined to the opposite surface of  
      the beam component.

4. A contact structure, according to claim 1, wherein:  
          the beam component is elongate, has a one end, has an  
3   opposite end, has a one surface and has an opposite surface;  
          the post component is joined to the one end and to the  
          one surface of the beam component; and  
6       the tip component is joined to the opposite end and to  
      the opposite surface of the beam component.

5. A contact structure, according to claim 1, wherein:  
the post component is joined to an electronic  
3 component.

6. A contact structure, according to claim 1, further  
comprising an electronic component with a terminal, wherein:  
3 the post component is joined to a terminal of the  
electronic component.

7. A contact structure, according to claim 1, further  
comprising an electronic component wherein:  
3 the post component is built up upon the electronic  
component.

8. A contact structure, according to claim 1, further  
comprising an electronic component with a terminal, wherein:  
3 the post component is built up upon a terminal of the  
electronic component.

9. A contact structure, according to claim 1, wherein:  
the contact structure is a spring contact element.

10. An electronic component, according to claim 1, further  
comprising a second contact structure according to claim 1 mounted  
3 thereon, wherein:

a spacing between the tip components of the two contact  
structures is different than a spacing between the post components  
6 of the two contact structures.

11. An electronic component, according to claim 1, further comprising a second contact structure according to claim 1 mounted thereon, wherein:

the beam component of a one of the two contact structures is disposed at a different height from a surface of the electronic component than the beam component of another of the two contact structures.

12. A method of mounting a microelectronic contact structure to an electronic component, comprising:

providing a post component on an electronic component;  
fabricating a beam component;  
fabricating a tip component;  
joining the beam component to the post component; and  
joining the tip component to the beam component.

13. Method, according to claim 12, further comprising providing the post component on the electronic component by:

fabricating a the post component on a sacrificial substrate;

joining the post component to the electronic component;

and

removing the sacrificial substrate.

14. Method, according to claim 12, wherein:

the beam component is fabricated on a sacrificial substrate; and

further comprising joining the beam component to the post component by:

joining the beam component to the post component; and  
removing the sacrificial substrate.

15. Method, according to claim 12, wherein:

the tip component is fabricated on a sacrificial  
3 substrate; and

further comprising joining the tip component to the  
beam component by:

6 joining the tip component to the beam component; and  
removing the sacrificial substrate.

16. Method, according to claim 12, wherein:

the post component is built up upon the electronic  
3 component.

17. Method, according to claim 12, wherein:

the beam component is elongate, has a one end and an  
3 opposite end;

joining the post component to the one end of the beam  
component; and

6 joining the tip component to the opposite end of the  
beam component.

18. Method, according to claim 12, wherein:

the beam component has a one surface and an opposite  
3 surface;

joining the post component to the one surface of the  
beam component; and

6 joining the tip component to the opposite surface of  
the beam component.

19. Method, according to claim 12, wherein:

the beam component is elongate, has a one end, has an  
3 opposite end, has a one surface and has an opposite surface;

joining the post component to the one end and to the  
one surface of the beam component; and

6           joining the tip component to the opposite end and to  
the opposite surface of the beam component.

20.       Method of mounting two microelectronic contact  
structures to an electronic component, comprising, for each  
3 microelectronic contact structure:

          providing a post component on an electronic component;  
          fabricating a beam component;

6           fabricating a tip component;  
          joining the beam component to the post component; and  
          joining the tip component to the beam component;

9           further comprising:

          disposing the beam of a one of the two microelectronic  
contact structures at a different height from a surface of the  
12 electronic component than the beam component of another of the two  
microelectronic contact structures.